

Application No.: 09/980,880
Amendment Dated: June 30, 2005
Reply to Office Action of: April 1, 2005

MAT-8189US

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 8-12. These sheets replace the original sheets. The legend --PRIOR ART-- has been added to Figures 8-12.

Remarks/Arguments:

The pending claims are 1-5, 9-10, 12-29. Claims 6-8, 11 have been canceled. Claims 1-5, 9-10, 16-18, 23-25 have been amended. No new matter is entered therein.

The Office Action has objected to Figure 8-12 of the drawings. Since those figures have been amended, applicants request that the objection be withdrawn.

Claims 1-3, 16, 18, 23 and 25 have been rejected under 35 U.S.C. § 102(b) as anticipated by Onagawa et al. (Patent Abstracts of Japan No. 08-273649). Amended claim 1 recites, in part:

said caulked portion includes a first contact portion and a second contact portion between the surface of the outer of the outer periphery end of said flange and said bend portion, a contact pressure of said first contact portion is stronger than a contact pressure of said second contact portion;

said outer periphery end of said flange portion includes a projection extending from at least one out of the surface and the back thereof;

said first contact portion is formed from a contact of said projection and said bend portion.

These features are not shown in Onagawa. Although Onagawa shows a caulked portion, it does not disclose that the outer periphery end of the flange has a projection extending from it and that a first contact portion is formed from a contact of the projection and the bend portion. It also does not show that the caulked portion has first and second contact portions between the surface of the outer periphery end of the flange and the bend portion and that a contact pressure of the first contact portion is stronger than a contact pressure of the second contact portion. An advantage of the projection is that it stabilizes the state of contact between the filter and the cap resulting in a decreased and stabilized electric contact resistance. (see, e.g., page 22, lines 15-17). Accordingly, amended claim 1 is not subject to rejection under 35 U.S.C. § 102(b) as anticipated by Onagawa. Since amended

claims 2 and 3 depend from amended claim 1, they are also not subject to the same rejection at least for the same reasons.

Claim 16 has been amended in the same way that claim 1 has been amended. Accordingly, amended claim 16 and dependent claim 18 are also not subject to rejection under 35 U.S.C. § 102(b) as anticipated by Onagawa for the same reasons that amended claim 1 is not subject to the same rejection.

Method claim 23 has been amended in a manner that is similar to the way in which apparatus claims 1 and 16 have been amended. Method claim 23, as amended, recites in part:

where the step of forming said cap includes forming a projection at said outer periphery end of said flange portion, said projection extending from at least one out of the surface and the back thereof; and

the step of forming said caulked portion includes a step of electrically connecting said cap and said filter to each other by contacting the outer periphery end at said caulked portion with said bend portion so that said caulked portion includes a first contact portion and a second contact portion between the surface of the outer periphery end of said flange and said bend portion, a contact pressure of said first contact portion is stronger than a contact pressure of said second contact portion.

Accordingly, amended claim 23 recites forming a cap that includes forming a projection at the outer periphery end of the flange portion that extends from the flange portion and that the caulked portion includes first and second contact portions that result in a strong contact pressure at the first contact portion. As explained above, Onagawa does not disclose these features. Accordingly, amended claim 23 and amended dependent claim 25 are not subject to rejection under 35 U.S.C. §102(b) as anticipated by Onagawa for the same reasons that amended claim 1 is not subject to the same rejection.

Claims 1-3, 16, 18, 23 and 25 have also been rejected under 35 U.S.C. §102(b) as unpatentable over applicants' Admitted Prior Art which is shown in Figures 8-12 of the present application. Applicants Admitted Prior Art does not

disclose the features recited in amended claims 1, 16, and 23 that have been recited above in connection with applicants' discussion of the rejection based upon Onagawa. Accordingly, amended claims 1-3, 16, 18, 23 and 25, are not subject to rejection under 35 U.S.C. § 102(b) as anticipated by applicants' Admitted Prior Art.

Claim 4 has been rejected under 35 U.S.C. § 103(a) as unpatentable over Onagawa et al. in view of Ishizuka et al. (U.S. Patent No. 6,019,802). Claim 4 has been amended to correct a typographical error. It depends from amended claim 1. The device described in Ishizuka "relates to a nonaqueous secondary battery in which a water-dispersion paste of an electrode material mixture is used for the preparation of an electrode, and a process for producing such a battery." (col. 1, lines 8-12). Ishizuka does not disclose or suggest the invention described in amended claim 1. Even if the devices described in Onagawa and in Ishizuka were combined, the resultant device would not contain all of the features recited in amended claim 1. Accordingly, amended claim 1, as well as dependent claim 4, are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa et al. in view of Ishizuka et al.

Claims 5-15, 17, 19-22, 24, and 26-29 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Onagawa et al. in view of Nishino et al. (Patent Abstracts of Japan No. 08-339785). Since claims 6-8 and 11 have been canceled, those rejections are moot.

Claim 5, as amended, depends from amended claim 1. As noted above, amended claim 1 recites not only that

said outer periphery end of said flange portion includes a projection extending from at least one out of the surface and the back thereof

it also recites, in part, that

said caulked portion includes a first contact portion and a second contact portion between the surface of the outer periphery end of said flange and said bend portion. . .

and

said first contact portion is formed from a contact of said projection and said bend portion.

The Office Action acknowledges that Onagawa does not teach projections located at the outer periphery of the flange portion; but contends that Nishino teaches a protrusion of concentric circumference in an outer portion of the flange. The above-recited projection and contact features are different than the features disclosed or suggested in Nishino. Nishino teaches a concentric circular protrusion 1a. (See, Figure 1 and Abstract). Nishino's protrusion 1a is different from the projection recited in amended claim 1. The purpose of Nishino's protrusion is to break gasket 3 when the compressing rate exceeds 75%. The gasket 3 is interposed between the protrusion 1a and positive electrode case 2 to intervene as an insulating material between them. (specification [0010]). Accordingly, gasket 3 is used to insulate electrode 2 from plate 1. In contrast, the purpose of the projection recited in amended claim 1 is to provide a contact "between the surface of the outer periphery end of said flange and said bend portion." The device in amended claim 1 has electrical contact between the flange and the filter: "said caulked portion includes a first contact portion and a second contact portion between the surface of the outer periphery end of said flange and said bend portion." Accordingly, amended claim 1, as well as dependent claims 5, 9, and 10 are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa et al. in view of Nishino et al.

Claim 12 recites, in part:

the distance from a mating face of said filter and cap to the peak of said projection is greater than the thickness of said flange portion; and

each of the peaks has a stronger contact pressure against said bend portion of said filter as compared with zones other than said peaks.

Neither Onagawa nor Nishino disclose or suggest either of these features. Accordingly, claim 12, and its dependent claim 13, are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa in view of Nishino.

Claim 14 recites, in part:

said caulked portion includes an integral projection such that said outer periphery end and said bend portion are integrally projected;

* * * * *

said integral projection has stronger contact pressure as compared with zones other than said integral projection.

Neither Onagawa nor Nishino disclose or suggest "an integral projection such that said outer periphery end and said bend portion are integrally projected." Since neither of them have an integral projection, they also do not have stronger contact pressure at an integral projection. Accordingly, claim 14 and its dependent claim 15 are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa et al. in view of Nishino et al.

Claim 17 depends from amended claim 16. The features recited in amended claim 16 have been outlined above in connection with the rejection of amended claim 16 and the rejection of amended claim 1 based upon Onagawa and upon applicants' Admitted Prior Art. The features have also been outlined in connection with the rejection of claim 5 over Onagawa in view of Nishino. The reasons why applicants contend that Onagawa does not disclose or suggest those features were stated in connection with the rejection of claims 1 and 5. The failure of Nishino to disclose or suggest a projection and contact portions has been discussed in connection with the rejection of claim 5. All of those arguments are incorporated by reference. Those arguments demonstrate that claim 17, which depends from amended claim 16, is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa in view of Nishino. Similarly, claims 19-22, which depend from claim 17, are also not subject to the same rejection for at least the same reasons.

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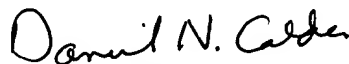
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Claim 24 depends from amended claim 23. The features recited in amended claim 23 have been outlined above in connection with the rejection of amended claim 23 over Onagawa. The failure of Nishino to disclose or suggest a projection that forms a contact between the surface of the outer periphery end of the flange and the bend portion and its failure to disclose or suggest a strong contact pressure has been discussed above regarding the rejection of claims 5, 12 and 14, respectively. Therefore, claim 24 and dependent claims 26-28 are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa in view of Nishino.

Claim 29 depends from amended claim 23. It is also not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Onagawa in view of Nishino for the same reasons that dependent claim 24 is not subject to rejection.

For all of the above reasons, claims 1-5, 9-10, 12-29 are now in condition for allowance.

Respectfully submitted,



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Attachments: Figures 8-12 (2 sheets)

Dated: June 30, 2005

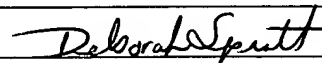
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June 30, 2005

Deborah Spratt



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